

23. A method for treating a workpiece comprising the steps of:
- heating a liquid;
  - applying the heated liquid onto the surface of the workpiece;
  - heating the surface of the workpiece, at least in part with the heated liquid;
  - forming the heated liquid into a layer on the surface of the workpiece;
  - controlling the thickness of the layer of the heated liquid on the surface of the workpiece;
  - introducing ozone gas into the environment around the workpiece;
  - diffusing the ozone gas through the heated liquid layer on the surface of the workpiece; and
  - accelerating the chemical reaction of the diffused ozone at the surface of the workpiece via the heating.
24. The method of claim 23 where the step of controlling includes rotating the workpiece at from 300-3000 rpm.
25. The method of claim 23 where the heated liquid is applied as a pulsed stream.
26. The method of claims 23 further including the step of spinning the workpiece about a non-vertical spin axis, so that the surface of the workpiece contacted by the heated liquid, is not horizontal.

27. The method of claims 23 where the ozone gas introduced into the environment around the workpiece comes from ozone gas bubbles in the heated liquid, or from dissolved ozone gas coming out of solution, as the heated liquid is applied to the workpiece.
28. The method of claim 23 where the heated liquid is sprayed continuously onto the workpiece.
29. The method of claim 24 where the workpiece is rotated at 1500-3000 rpm.
30. A method for treating a workpiece, comprising the steps of:
- loading the workpiece into a chamber;
  - supplying steam into the chamber;
  - heating the workpiece, at least in part, with the steam;
  - allowing at least some steam to condense as a liquid on the workpiece, to form a layer of heated liquid on the workpiece;
  - introducing ozone gas into the chamber;
  - diffusing the ozone gas through the layer of heated liquid; and
  - causing a reaction with ozone and the workpiece.